U.S. Serial No. 09/171,081

Attorney Docket No.: 39415-0005

## **AMENDMENTS**

## Amendments in the claims:

Claims 1-35. (canceled)

Claim 36. (currently amended): A process for producing clavulanic acid or a salt thereof,

comprising:

(a) fermenting a clavulanic acid-producing species of Streptomyces in a

fermentation broth containing sources of assimilable carbon, nitrogen, and phosphorus, wherein

after the phosphorus source initially present in the starting medium is consumed, the

concentration of assimilable phosphorus is maintained in the fermentation broth is less than

0.15% w/v, and wherein said fermentation comprises a growth phase and a stationary

phase; and,

(b) growing the species at an assimilable phosphorus concentration of

between 0.0015% w/v to less than and 0.15% w/v during [[said]] the growth phase of

fermentation, after which the concentration of said assimilable phosphorus is allowed to

deerease, and

[[(c)]]b isolating the clavulanic acid, or a salt thereof, from the

fermentation broth, wherein the phosphorus concentration is allowed to decrease after

cessation of the growth phase.

Claim 37. (canceled).

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Claim 38. (currently amended): The process of Claim 36, wherein the concentration of said assimilable phosphorus is allowed to decrease to a low value 0.00 % w/v after a fermentation time of 40 hours.

Claims 39-41. (canceled).

- Claim 42. (previously presented): The process of Claim 41, wherein no source of assimilable phosphorus is used after a fermentation time of 40 hours.
- Claim 43. (previously presented): The process of Claim 36, wherein ammonia is not the sole said source of assimilable nitrogen.
- Claim 44. (previously presented): The process of Claim 43, wherein said source of assimilable nitrogen does not include said ammonia.
- Claim 45. (previously presented): The process of Claim 36, wherein said source of assimilable phosphorus is sodium phosphate, potassium phosphate, sodium dihydrogen phosphate, potassium dihydrogen phosphate, disodium hydrogen phosphate, dipotassium hydrogen phosphate, or a mixture thereof.
- Claim 46. (previously presented): The process of Claim 45, wherein said source of assimilable phosphorus is sodium dihydrogen phosphate.
- Claim 47. (currently amended): The process of Claim 36, wherein said species is Streptomyces clavuligerus, Streptomyces jmonjinensis, Streptomyces katsurahamanus, or Streptomyces sp. P6621.

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Claim 48. (previously presented): The process of Claim 36, wherein said fermentation is a fed batch fermentation, with intermittent or continuous use of said source of assimilable phosphorus.

Claim 49. (currently amended): The process of Claim 36, wherein said source of assimilable carbon is selected from the group consisting of glycerol trioleate, glycerol, and corn starch, and said source of assimilable carbon is optionally used during said growth phase of said fermentation.

Claim 50. (canceled).

Claim 51. (currently amended): The process of Claim 36, wherein said source of assimilable nitrogen includes soy bean flour or ammonium sulfate, and said source of assimilable nitrogen is present in said fermentation broth upon fermentation and <u>is optionally used</u> during said growth phase of said fermentation.

Claims 52-95. (canceled).

Claim 96. (new) The process of Claim 36, wherein ammonium hydroxide or sodium hydroxide is used to maintain the pH of the media process at a value of between 6.8 to 6.9.